

Table S13 Trend analysis using Carstairs scores rather than quintiles as a measure of socio-economic status

Model includes cumulative radon exposure, cumulative gamma-ray exposure and Carstairs deprivation scores

Exposure period birth to diagnosis

| ICCC3 | Diagnostic grouping | Number of Cases | Number of Controls | Relative Risk | | | | | | | |
|--------------|------------------------------|-----------------------|--------------------------|-----------------|-------------|------|-----------------|-------------|------|-----------------|-------------|
| | | | | Radon | | | Gamma | | | Carstairs Score | |
| | | | | RR ^a | 95% CI | P | RR ^b | 95% CI | P | RR ^c | 95% CI |
| 11 | Lymphoid Leukaemia | 7267 | 9571 | 1.24 | 0.94 - 1.64 | 0.13 | 1.10 | 1.02 - 1.18 | 0.02 | 0.98 | 0.97 - 0.99 |
| 12 | Acute Myeloid Leukaemia | 1316 | 1737 | 0.71 | 0.37 - 1.39 | 0.32 | 1.04 | 0.89 - 1.21 | 0.61 | 0.98 | 0.96 - 1.01 |
| 13-15 | Other Leukaemia | 475 | 604 | 1.04 | 0.41 - 2.59 | 0.94 | 1.20 | 0.90 - 1.59 | 0.21 | 1.04 | 1.01 - 1.09 |
| 11-15 | Total Leukaemia | 9058 | 11912 | 1.12 | 0.88 - 1.43 | 0.35 | 1.09 | 1.02 - 1.16 | 0.01 | 0.99 | 0.98 - 1.00 |
| 21 | Hodgkin's disease | 939 | 1388 | 1.06 | 0.67 - 1.70 | 0.79 | 1.04 | 0.93 - 1.16 | 0.52 | 1.01 | 0.98 - 1.04 |
| 22 | Non-Hodgkin Lymphoma | 983 | 1302 | 1.24 | 0.67 - 2.31 | 0.50 | 1.04 | 0.90 - 1.22 | 0.57 | 1.01 | 0.98 - 1.04 |
| 21-25 | Total Lymphoma | 2319 | 3274 | 1.12 | 0.79 - 1.59 | 0.52 | 1.01 | 0.93 - 1.10 | 0.81 | 1.01 | 0.99 - 1.03 |
| 11 ,22 | Lymphoid Leukaemia + NHL | 8250 | 10873 | 1.24 | 0.96 - 1.59 | 0.10 | 1.09 | 1.01 - 1.16 | 0.02 | 0.99 | 0.98 - 1.00 |
| 11-15, 22 | Total Leukaemia + NHL | 10041 | 13214 | 1.13 | 0.90 - 1.42 | 0.27 | 1.08 | 1.02 - 1.15 | 0.01 | 0.99 | 0.98 - 1.00 |
| 31-36 | Brain/CNS (including Benign) | 6585 | 8997 | 1.14 | 0.87 - 1.50 | 0.33 | 1.02 | 0.96 - 1.09 | 0.49 | 0.99 | 0.98 - 1.00 |
| 41-122 | Other malignant tumours | 9485 | 12610 | 1.00 | 0.80 - 1.24 | 0.98 | 1.02 | 0.96 - 1.08 | 0.60 | 1.00 | 0.99 - 1.01 |
| 21-122 | Not Leukaemia | 18389 | 24881 | 1.06 | 0.91 - 1.24 | 0.43 | 1.02 | 0.98 - 1.06 | 0.39 | 1.00 | 0.99 - 1.00 |
| 11-122 | Total Childhood Cancer | 27447 | 36793 | 1.08 | 0.95 - 1.23 | 0.24 | 1.03 | 1.00 - 1.07 | 0.04 | 0.99 | 0.99 - 1.00 |

^aRR for each 10^3 Bq/m³ - years increase in cumulative radon exposure^bRR for each mGy increase in cumulative gamma exposure^cRR for each unit increase in Carstairs deprivation scoreRRs in bold are significantly different from 1.00 ($P<0.05$), RRs in bold and underlined are significantly different from 1 ($P<0.01$)